

Remarks

Applicants are grateful to the Examiner for her comments regarding the specification and claims (paragraphs 1 to 5 of the detailed action). However, these comments, and corresponding rejections, are now moot in view of the claim amendments, which introduce a new and specific limitation. Enclosed herewith is the fee for additional claims.

The new independent claims (20, 34, 48) are directed to the "forking" feature of the present invention as described on page 31, line 28 to page 32, line 15 and in connection with figure 5 of the present application. This feature is a particular characteristic of the session initiation protocol (SIP), and indeed the modified SIP++ protocol described in the present invention. The ability to "fork" the communications session setup request messages (for example, SIP or SIP++ INVITE messages) allows for probing of paths across parts of the network where no explicit route is preferred. Dependent claims (21-23, 35-37) are directed to this feature of non-explicit path portions to be traversed by the communication session setup request messages. This feature (referred to as "wildcarding") is described at page 29, lines 15 to 37 of the present application. Other features specified in the original claims are to be found in other parts of the specification of the present invention. Care has been taken to ensure that no new matter has been added as a result of the present amendments.

Applicants will now refer to the prior art references cited. Applicants have considered and responded to the Examiner's claim rejections over the prior art detailed in paragraphs 6 to 13 of the detailed action, and in particular to the response to previous arguments in paragraph 14 of the detailed action. Applicants maintain their previous submissions in this respect. However, in view of the claim amendments, the Examiner's rejections are all now moot.

The new claims are responsive in particular to the prior art submitted in an Invention Disclosure Submission submitted in 2003. In particular, the present invention is believed to be closest in subject matter to the publication "Distributed Quality-of-Service Routing in High-Speed Networks Based on Selective Probing" by Shigang Chen and Klara Nahrstedt published by the IEEE. The Examiner is kindly requested to consider this reference in detail. In particular, the Examiner is directed to paragraph 3.1 which refers to a "Two-phase connection establishment protocol".

The present invention, as defined by the current claims, differs from the teaching of the reference identified above in at least one crucial respect. In the prior art reference, "probes" are sent from the source s towards the destination t to select a tentative routing path (see lines 8 to 9 of section 3.1). However, one problem in sending multiple probes is that of "flooding" the network. In other words, multiple probes are flooded over many different paths of the network in order to select only one path to establish the connection over. A solution to the problem of increasing signaling overhead by flooding is proposed in this reference at page 82, lines 2 to 9. The solution is to selectively flood only along those paths which satisfy QoS and optimization requirements. Thus, the solution suggested by the prior art reference involves the steps of: (1) identifying which paths satisfy the QoS and optimization requirements required, and (2) sending probe messages from source s to destination t only along those paths identified. It should be noted, however, that the reference clearly teaches that a probe message is sent from the source s to destination t for each identified path.

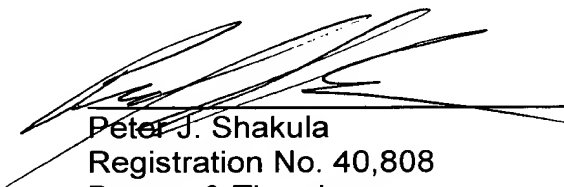
In contrast to the teaching of the above prior art reference, the present invention, as identified by the current claims, teaches a method of "forking" (at a third node) a communications session setup message sent from a first node towards a second node. In other words, at the third node a single communications session setup message is replicated to form at least two derivative communication session setup messages which are then forwarded to the second node along

different respective paths. Thus, signaling overhead is conserved because only a single communications session setup message need be sent from the first node to the third node. In other words, whereas the prior art reference teaches sending multiple probes from the source to destination, in the present invention, only a single communications session setup message need be sent and it is "forked" where necessary (for example, where a route specified for the communications session setup message is not explicit).

Since there is no teaching of the feature of "forking" communications session setup request messages in the reference discussed above (which is considered by applicants to be the closest prior art reference), nor in any of the other cited references, applicants submit that the present invention as defined by the current claims is both novel and non-obvious over the prior art references cited. Therefore, applicants request favorable reconsideration of the present application.

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Respectfully submitted,



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